

What is claimed is:

1. A ball end mill comprising:
an approximately semi-circular cutting blade at the tip of a tool main body which rotates around an rotational axis; and a rake face and an flank, which are provided on either side of the cutting blade; wherein
the cutting blade deviating from the rotational axis by a predetermined distance.
2. A ball end mill as described in Claim 1, the predetermined distance being between 0.5 % and 10 % of the outer diameter of the cutting blade.
3. A ball end mill as described in Claim 1, wherein blade faces are formed by the rake face and flank, which continue along either side of the cutting blade, the blade faces on each side having predetermined angles of inclination when viewed from a cross-section perpendicularly intersecting the cutting blade; and
the predetermined angles are different each other as rake angles.
4. A ball end mill as described in Claim 2, wherein blade faces are formed by the rake face and flank, which continue along either side of the cutting blade, the blade faces on each side having predetermined angles of inclination when viewed from a cross-section perpendicularly intersecting the cutting blade; and
the predetermined angles are different each other as rake angles.
5. A ball end mill as described in Claim 1, rake angle of the rake face being a negative angle.
6. The ball end mill as described in Claim 1, the cutting blade being slightly rounded by mirror polishing.
7. The ball end mill as described in Claim 1, the cutting blade being provided on a flat surface parallel to the rotational axis.